PROJECT DESCRIPTION **EQUIPMENT LIST "A"** GENERAL A. EQUIPMENT TO BE SUPPLIED BY THE SHA B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR THIS PROJECT INVOLVES THE INSTALLATION OF A NEW DEMAND BASED PART-TIME TRAFFIC RESPONSIVE TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 25 (FALLS ROAD) AND ST. PAULS SCHOOL ROAD IN BALTIMORE ITEM NO. QUANTITY DESCRIPTION COUNTY, MARYLAND, MD 25 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION. 9016 1 EACH FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER INTERSECTION OPERATION EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH INTERSECTION MONITOR HOUSED IN A NEMA SIZE "5" POLE MOUNTED CABINET 9044 1 EACH NORMAL OPERATION 9086 VIDEO INTERFACE EQUIPMENT: 1-4 CAMERAS 1 EACH THE INTERSECTION WILL OPERATE WITH THE MD 25 (FALLS ROAD) APPROACHES FLASHING YELLOW AND THE ST. PAULS SCHOOL ROAD APPROACH FLASHING RED. 9571 SHEET ALUMINUM SIGNS TO CONSIST OF : 49 S.F. SPECIAL OPERATION - 2 EACH S1-1 SIGN (36 IN. x 36 IN.) - MAST ARM MOUNT WHEN ACTIVATED, THE TRAFFIC SIGNAL WILL OPERATE IN A NEMA (4) PHASE, FULL-TRAFFIC-ACTUATED MODE AND WILL UTILIZE A TIME CLOCK FOR DAILY SCHOOL OPERATIONS. 1 EACH S5-2 (24 IN. × 30 IN.) - GROUND MOUNT EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING IS PROVIDED FOR THE NORTHBOUND MD 25 APPROACH. - 2 EACH W3-3 SIGN (36 IN. \times 36 IN.) WITH "NEW" PANEL (24 IN. x 24 IN.) AND FLAG - GROUND MOUNT CONTROLLER REQUIREMENTS INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS), INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "5" POLE MOUNTED CABINET. PHONE DROP UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR, ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER. MAINTENANCE OF TRAFFIC **EQUIPMENT LIST "C"** THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER. NO EQUIPMENT TO BE REMOVED AND RETURNED TO SHA STANDARD NO. MD-104.04-01 (SHOULDER WORK) STANDARD NO. MD-104.04-03 (LEFT LANE CLOSURE) STANDARD NO. MD-104.04-05 (RIGHT LANE CLOSURE) PROJECT CONTACTS THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS: PHASE CHART MR. MIKE PASQUARIELLO ASST. DISTRICT UTILITY ENGINEER ASSISTANT DISTRICT ENGINEER - TRAFFIC PHONE: (410) 321-2841 PHONE: (410) 321-2781/2785 MR. ANDRE FUTRELL ASSISTANT DISTRICT ENGINEER - MAINTENANCE MR. RICHARD L. DAFF, SR. CHIEF, TRAFFIC OPERATIONS DIVISION PHONE: (410) 787-7630 PHONE: (410) 321-2761 WIRING DIAGRAM SPECIAL OPERATION PHASE 2 + 5 2 + 5 CHANGE PHASE 2 + 6 G 2 + 6 CHANGE PHASE 4 4 CHANGE R R R R NORMAL OPERATION FLY | FLY | FLY | FLY | FLR | FLR WIRING KEY —A.B.C.G,H,J,K, L,M,N,D,P,Q,R,S FLASHING FLY | FLY | FLY FLY | FLY | FL/R <u></u>G,K,L,M,Q,R,S 7-CONDUCTOR ELECTRICAL **OPERATION** -N,O,P CABLE (NO. 14 A.W.G.) R.S----5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.) 2-CONDUCTOR ELECTRICAL CABLE ALUMINUM SHIELDED (NO. 14 A.W.G.) G 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) - TRAY CABLE ML - MICROLOOP PROBE SET H VIDEO CAMERA DETECTION J LEAD-IN CABLE PT - PROPOSED UNDERGROUND TREVISION NO. ' TELEPHONE SERVICE REVISED QUATITIES AND PE - PROPOSED UNDERGROUND WIRING DIAGRAM MICROLOGP PROBE LEAD—IN ELECTRICAL SERVICE 1/29/2009 LW - LOOP WIRE (NO. 14 A.W.G.) STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.) + - $\frac{3}{4}$ IN. X 10 FT. GROUND ROD

EQUIPMENT LIST "B"

DESCRIPTION
MAINTENANCE OF TRAFFIC
TEST PIT EXCAVATION
24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH 250 WATT HPS LAMP & LUMINAIRE
BREAKAWAY PEDESTAL POLE (ANY SIZE)
MAST ARM POLE & 70 FT MAST ARM ANY 'T' DIMENSION
NONINVASIVE DETECTOR (ANY LENGTH) LEAD IN CABLE UP TO 1000 FT
REM & DISPOSE MAT & EQUIP PER ASSIGNMENT
VIDEO DETECTION CAMERA & CABLE UP TO 500 FT
1 INCH DETECTOR SLEEVE GALANIZED OR FLEXIBLE LIQUID TIGHT
SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - BORED
SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - SLOTTED
SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
WOOD SIGN SUPPORTS UP TO 4 X 6
INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
METERED SERVICE PEDESTAL EMBEDDED
ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG-THHN/THWN
FURNISH AND INSTALL ELECTRICAL HANDHOLE
12 INCH LED SIGNAL HEAD SECTION
CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG) TC
LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
SAW CUT FOR SIGNAL (LOOP DETECTOR)
INSTALL CONTROLLER AND CABINET - POLE MOUNT

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY

TRAFFIC ENGINEERING DESIGN DIVISION

MD 25 (Falls Road) and St. Paul's School Road Brooklandville, MD



Whitman, Requardt and Associates, LLP

Engineers, Architects and Planners 801 South Caroline Street Baltimore, Maryland 21231 410-235-3450

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Ē	NONE	ADVERTISED	DATE_	12/11/2008	CONTRAC	OT NO	XX

SCALE NO. <u>XX4465185</u> DESIGNED BY ____ COUNTY_ S. Bloss Baltimore DRAWN BY ____ LOGMILE 03025004.55 S. Bloss CHECKED BY N. Leary TIMS NO. TOD NO._ F.A.P. NO. SHEET NO. 3 OF 3 TS NO. 4698 DRAWING TSP-3 OF 3

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